

"Navigation [GCB: of the eastern Amazon] really begins at the end of the pongo of Manseriche, east of the mouth of the Santiago river, where once was located the old Spanish settlement of Borja, capital of the famous province of Mainas.... Becoming as narrow as 30 meters in these gorges, the river is proportionately widened on the plain as each voluminous tributary pours into it from one or the other of its banks. [67] La Condamine estimated that its width at the village of Omaguas, between the Tigre and the Nanay rivers, was 765 meters, and he did not find its depth to be more than 100 fathoms. At the mouth of the Napo its width was calculated by the same authority as 1,840 meters, while the width of the mouth of this tributary was fixed at 1,250 meters. But these dimensions vary considerably with the crecidas [freshets]; it is then that an immense zone along its muddy sides, reaching about 5 kilometers in width, is covered by its waters. As the river subsides, the water still remains in the concavities of the terrain, and sometimes forms brazos [arms] which contain islands, or sometimes forms numerous lagoons, which in periods of dryness remain isolated from the running waters.

The possibilities of navigation along the [GCB: eastern] Amazon increase or diminish according to whether one is concerned with the dry period or the period of the freshets. In the former, steamers can ascend only as far as the mouths of the Morona, and in the latter, [68] somewhat farther east, as far as old Borja. The two settlements

5: Reyes and Teran--66-68  
116, 133, 502

(No date) 1939

Jivaro-2

---

of major importance along the northern banks of the great river are Iquitos, at the mouth of the Nanay, and Nauta, between the mouth of the Nanay and that of the Tigre. By law and by geographic necessity, Ecuador can never renounce access to this section of the Amazon. "

12: Rivet--604

(no date) 1907

Jívaro

116, 502

The Jívaro is a skilled navigator. With his little canoe, braves the rapids of the most raging torrents, maneuvers the frail craft through rocks and whirlpools with a surety, a precision, and a calmness which all voyagers and missionaries agree in praising. The number of the oarsmen varies, according to the dimensions of the boat, from two to six. Each has a single oar in a seated or kneeling position. One Indian placed in the stern steers and keeps the canoe in the current with the aid of an oar.

"After putting in some days at Jamboé, making friends with the natives and exploring the surrounding country, we made ready to proceed farther down the Zamora, our objective being a place called Chicaña, a day's journey on the river. As all Jíbaro canoes are communal property, some parleying had to be done with the different chiefs before consent could be obtained to our use of one. The dug-out which we eventually got was navigated by two Jíbaros, hired for the trip, one standing at the bow and the other at the stern, and having long poles for steering. No effort was required to move the canoe, as the current alone was strong enough to take it along at a good rate.

There were frequent rapids, some shallow and smoothly graded, others deep and strewn with great boulders and projecting rocks, making formidable obstructions among which the craft was maneuvered by the Indians with consummate skill and grace. On both sides of the river the forest came down to the water's edge, save where the low banks sloped away to wide sandy playas, marking the flood-plain."